

Pyrola asarifolia

Status

Federal status: G5 N?, Not listed

NH state status: S2, Endangered

ME state status: S3, Special Concern

Population trends for this species are unknown. Most occurrences in New Hampshire are identified as historic, but there is nothing to indicate that they have been revisited in recent decades, so they may be extant. Almost all Maine occurrences are known to be extant.

The expert panel indicated that the current outcome for this species is probably a B now and for the next twenty years range-wide. On the WMNF, the panel gave it a C rating for the present and the future because there are very few occurrences and not much risk to the habitat in the future.

Distribution

Plant grows from Alaska to New Brunswick, south to Massachusetts, west to Indiana and Iowa and further west to California. It is prevalent in most western states and Canada. New England is the southeastern limit of its range.

In New Hampshire, occurrences are documented from Stratford, Milan, Gorham, Shelburne, and Bean's Purchase. Of these only the Bean's Purchase occurrence is known to be extant, and only that occurrence is from the WMNF. In Maine, occurrences are known from Aroostook County, Franklin County, Somerset County, Piscataquis County, Washington County, and Oxford County. The Oxford County occurrence is the only historic occurrence. None are from the WMNF.

Habitat

Pyrola asarifolia uses a variety of habitats, most of which have a rich character (enriched hardwoods, cedar swamps, alluvial soils). It appears to be linked more to nutrient levels than vegetation type, hydrology, or canopy cover. In northern New England, it is documented primarily in calcareous rich woods and thickets, especially alluvial areas of river terraces, open wetlands, and cedar swamps. Considered a facultative wetland species in the northeast. Largest populations occur in relatively open conditions, such as along riverbanks.

It tends to occur at forest edges; plants with more light available to them are more robust and more likely to flower. This suggests that partial removal of the canopy could benefit populations; however, complete canopy removal could be detrimental as it would cause more drastic habitat changes.

Limiting Factors

In New Hampshire, the availability of calcareous habitat is probably the greatest limiting factor.

Threats to individual populations in Vermont, which could be threats elsewhere as well, include logging, agriculture, trampling by hikers, and changing water levels. Some

harvest may be beneficial to this species, but complete canopy removal likely would be detrimental because it would cause drastic habitat changes.

Pyrola asarifolia is an intermediate host to spruce cone rust fungus, which usually is not fatal, but can cause a plant to die if the infestation is large enough. This fungus also seems to make plant more likely to be fed on by insects, which could pose a problem in small populations.

Viability concern

The outcome on the WMNF was identified as marginal due to limited habitat and few occurrences, but neither habitat nor populations are likely to be substantially impacted. It is tracked on the WMNF because it is on the Regional Forester's Sensitive Species list.

Management activities that might affect populations or viability

Regeneration harvests in suitable could impact light, moisture, temperature, and nutrient availability in suitable habitat and increase competition. What impact different harvest techniques could have on this species is uncertain. Several sources agree that selection harvest is less likely to reduce habitat suitability than clearcutting. Harvest that creates edge habitat near this species could increase habitat suitability.

Trampling by hikers could affect populations near or along trails. Management and education that would help keep hikers on designated trails should benefit this species by limiting impacts to existing trail corridors.

Changes to local hydrology could affect habitat suitability for this species, especially where it occurs in wetland or riparian habitats. Construction and removal of dams, breaching of beaver dams, encouragement of beaver activity, and road construction could affect hydrology, depending on the circumstances. How much change must occur before it impacts this species is unknown and probably depends on site conditions.

References

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